CLAIMS

What is claimed is:

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- 1. An organophotoreceptor comprising an electrically conductive substrate and a photoconductive element on the electrically conductive substrate, the photoconductive element comprising:
 - (a) a charge transport material having the formula

where R₁, R₂, R₃, and R₄ are, independently, an alkyl group, an alkaryl group, or an aryl group;

Y is an alkyl group, alkaryl group, or aryl group;

X is a linking group having the formula - $(CH_2)_m$ -, branched or linear, where m is an integer between 1 and 20, inclusive, and one or more of the methylene groups is optionally replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, a NR₃ group, a CHR₄ group, or a CR₅R₆ group where R₃, R₄, R₅, and R₆ are, independently, H, hydroxyl group, thiol group, an alkyl group, an alkaryl group, a heterocyclic group, or an aryl group; and

E is an epoxy group; and

- (b) a charge generating compound.
- 2. An organophotoreceptor according to claim 1 wherein X is a OCH₂ group.
- 3. An organophotoreceptor according to claim 2 wherein R_1 , R_2 , R_3 , and R_4 are, independently, an aryl group.
- 4. An organophotoreceptor according to claim 1 wherein the charge transport material has a formula selected form the group consisting of the following:

Attorney Docket No. 3216.29US01 (SIL-03-132)

- 5. An organophotoreceptor according to claim 1 wherein the photoconductiveelement further comprises a second charge transport material.
 - 6. An organophotoreceptor according to claim 5 wherein the second charge transport material comprises an electron transport compound.
- 7. An organophotoreceptor according to claim 1 wherein the photoconductive element further comprises a binder.
 - 8. An electrophotographic imaging apparatus comprising:
 - (a) a light imaging component; and
- (b) an organophotoreceptor oriented to receive light from the light imaging component, the organophotoreceptor comprising an electrically conductive substrate and a photoconductive element on the electrically conductive substrate, the photoconductive element comprising
 - (i) a charge transport material having the formula

$$R_{4}$$
 R_{4}
 R_{4}
 R_{1}
 R_{2}
 R_{3}
 R_{3}
 R_{4}
 R_{1}
 R_{2}
 R_{3}
 R_{4}
 R_{1}
 R_{2}
 R_{3}
 R_{4}
 R_{1}
 R_{2}
 R_{3}
 R_{4}
 R_{5}
 R_{1}
 R_{2}
 R_{3}
 R_{4}
 R_{5}
 R_{5

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where R_1 , R_2 , R_3 , and R_4 are, independently, an alkyl group, an alkaryl group, or an aryl group;

Y is an alkyl group, alkaryl group, or aryl group;

X is a linking group having the formula - $(CH_2)_m$ -, branched or linear, where m is an integer between 1 and 20, inclusive, and one or more of the methylene groups is optionally replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, a NR₃ group, a CHR₄ group, or a CR₅R₆ group where R₃, R₄, R₅, and R₆ are, independently, H, hydroxyl group, thiol group, an alkyl group, an alkaryl group, a heterocyclic group, or an aryl group; and

E is an epoxy group; and

- (ii) a charge generating compound.
- 9. An electrophotographic imaging apparatus according to claim 8 wherein X is a OCH₂ group.
- 10. An electrophotographic imaging apparatus according to claim 9 wherein R₁,
 15 R₂, R₃, and R₄ are, independently, an aryl group.
 - 11. An electrophotographic imaging apparatus according to claim 8, wherein the charge transport material has a formula selected form the group consisting of the following:

- 12. An electrophotographic imaging apparatus according to claim 8 wherein the photoconductive element further comprises a second charge transport material.
- 25 13. An electrophotographic imaging apparatus according to claim 12 wherein second charge transport material comprises an electron transport compound.

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- 14. An electrophotographic imaging apparatus according to claim 8 further comprising a liquid toner dispenser.
- 15. An electrophotographic imaging process comprising;
- (a) applying an electrical charge to a surface of an organophotoreceptor comprising an electrically conductive substrate and a photoconductive element on the electrically conductive substrate, the photoconductive element comprising:
 - (i) a charge transport material having the formula

$$R_{2}$$
 R_{3}
 R_{4}
 N
 $-Y$
 N
 R_{1}
 X
 E

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where R₁, R₂, R₃, and R₄ are, independently, an alkyl group, an alkaryl group, or an aryl group;

Y is an alkyl group, alkaryl group, or aryl group;

X is a linking group having the formula - $(CH_2)_m$ -, branched or linear, where m is an integer between 1 and 20, inclusive, and one or more of the methylene groups is optionally replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, a NR₃ group, a CHR₄ group, or a CR₅R₆ group where R₃, R₄, R₅, and R₆ are, independently, H, hydroxyl group, thiol group, an alkyl group, an alkaryl group, a heterocyclic group, or an aryl group; and

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E is an epoxy group; and

- (ii) a charge generating compound.
- (b) imagewise exposing the surface of the organophotoreceptor to radiation to dissipate charge in selected areas and thereby form a pattern of charged and uncharged areas on the surface;
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- (c) contacting the surface with a toner to create a toned image; and
- (d) transferring the toned image to substrate.

Attorney Docket No. 3216.29US01 (SIL-03-132)

- 16. An electrophotographic imaging process according to claim 15 wherein X is a OCH₂ group.
- 17. An electrophotographic imaging process according to claim 16 wherein R₁, R₂,
 R₃, and R₄ are, independently, an aryl group.
 - 18. An electrophotographic imaging process according to claim 15 wherein the charge transport material has a formula selected from the group consisting of the following:

- 19. An electrophotographic imaging process according to claim 15 wherein the photoconductive element further comprises a second charge transport material.
- 20. An electrophotographic imaging process according to claim 19 wherein the second charge transport material comprises an electron transport compound.
 - 21. An electrophotographic imaging process according to claim 15 wherein the photoconductive element further comprises a binder.
 - 22. An electrophotographic imaging process according to claim 15 wherein the toner comprises a liquid toner comprising a dispersion of colorant particles in an organic liquid.
 - 23. A charge transport material having the formula

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Attorney Docket No. 3216.29US01 (SIL-03-132)

$$R_{4}$$
 R_{4}
 R_{1}
 R_{2}
 R_{3}
 R_{3}
 R_{4}
 R_{1}
 R_{2}
 R_{3}
 R_{4}
 R_{1}
 R_{2}
 R_{3}
 R_{4}
 R_{1}
 R_{2}
 R_{3}
 R_{4}

where R₁, R₂, R₃, and R₄ are, independently, an alkyl group, an alkaryl group, or an aryl group;

Y is an alkyl group, alkaryl group, or aryl group;

X is a linking group having the formula $-(CH_2)_m$ -, branched or linear, where m is an integer between 1 and 20, inclusive, and one or more of the methylene groups is optionally replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, a NR₃ group, a CHR₄ group, or a CR₅R₆ group where R₃, R₄, R₅, and R₆ are, independently, H, hydroxyl group, thiol group, an alkyl group, an alkaryl group, a heterocyclic group, or an aryl group; and

E is an epoxy group.

- 24. A charge transport material according to claim 23 wherein X is a OCH₂ group.
- 25. A charge transport material according to claim 24 wherein R₁, R₂, R₃, and R₄ are, independently, an aryl group.
 - 26. A charge transport material according to claim 23 wherein the charge transport material has a formula selected from the group consisting of the following:

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